

Claims:

1. An optical control device, comprising:

a first substrate with at least one light output layer;

a second substrate with a light transmitting function, positioned opposite to the first substrate; and

a liquid crystal sandwiched between the first and second substrates,

one of the first and second substrates having electrodes for applying multiple scan signals, one of the first and second substrates having electrodes for applying multiple signal electrodes,

wherein

the light output layer is arranged in stripes and extends in the same direction as the electrodes for applying scan signals.

2. An optical control device, comprising:

a first substrate with at least one light output layer;

a second substrate with a light transmitting function, positioned opposite to the first substrate; and

a liquid crystal sandwiched between the first and second substrates,

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one of the first and second substrates having multiple active elements, one of the first and second substrates having gate electrodes for applying multiple scan signals, one of the first and second substrates having source electrodes for applying multiple signal electrodes,

wherein

the light output layer is arranged in stripes and extends in the same direction as the gate electrodes.

3. The optical control device as defined in claim 2, wherein

the active elements are provided on the second substrate.

4. The optical control device as defined in any one of claims 1 through 3, wherein

the first substrate has a layer with a light polarizing function.

5. The optical control device as defined in any one of claims 1 through 3, wherein:

the light output layer provided on the first substrate is formed by a light emitting layer composed of at least one of an organic EL light emitter, an inorganic

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EL light emitter, and an FED light emitter;

a first electrode film, the light emitting layer, and a second electrode film are provided in this order on the first substrate; and

the light emitting layer shines with application of a voltage across the first and second electrode films.

6. The optical control device as defined in claim 4, wherein:

the light output layer provided on the first substrate is formed by a light emitting layer composed of at least one of an organic EL light emitter, an inorganic EL light emitter, and an FED light emitter;

a first electrode film, the light emitting layer, and a second electrode film are provided in this order on the first substrate; and

the light emitting layer shines with application of a voltage across the first and second electrode films.

7. The optical control device as defined in any one of claims 1 through 3, wherein

the light output layer provided on the first substrate is formed by a combination of an optical waveguide and a light source coupled to the optical waveguide and positioned in a non-display section area.

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8. The optical control device as defined in claim 4, wherein

the light output layer provided on the first substrate is formed by a combination of an optical waveguide and a light source coupled to the optical waveguide and positioned in a non-display section area.

9. The optical control device as defined in claim 1, wherein

the light output layer shines with spectrum periodically varying according to a position of the light output layer.

10. The optical control device as defined in claim 9, wherein

the light output layer shines with spectrum periodically varying for each pixel.

11. A method of driving an optical control device as defined in either one of claims 1 and 2, wherein

the light output layer shines for a duration of 5% to 70% of each display frame time.

12. A method of driving an optical control device as defined in either one of claims 1 and 2, wherein

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the light output layer shines for a duration of 15% to 40% of each display frame time.

13. A method of driving an optical control device as defined in either one of claims 1 and 2, wherein

the light output layer shines when a specified time has elapsed after a set of scan signals are transmitted to scan lines and extinguishes before a succeeding set of scan signals are transmitted.

14. A method of driving an optical control device as defined in either one of claims 1 and 2, wherein:

the light output layer shines with a different wavelength from those of adjacent light output layers; and

more than one light output layers that shine with mutually different wavelengths are caused to shine simultaneously.

15. The method as defined in claim 14, wherein

each light output layer is either red, green, or blue so that red, blue, and green repeat periodically.

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